

Application No.: 10/711,798  
Examiner: SZABO, STEPHEN J  
Art Unit: 3714

Applicant: Chiu-Hao Cheng

**REMARKS**

**Present Status of the Application**

Claims 1-20 are pending of which claims 10, 12-18 have been amended, and claims 1-9 and 19-20 have been canceled and claim 21 has been newly added. It is believed that no new matter adds by way of amendment to claims or otherwise to the application.

For at least the following reasons, Applicant respectfully submits that Claims 10-18 and 21 are in proper condition for allowance and reconsideration of this application is respectfully requested.

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**Claim Rejections**

1. The Office Action objected to claims 1-20 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the Invention. In rejecting the above claims, the Examiner stated that claims 1, 6-8, 10, 15-17, 19 and 20 contain limitation "game machine main unit (system main unit)". It is unclear whether the applicant refers a game machine main unit or a system main unit. For the prosecution purpose, it shall be construed to be directed towards a game machine main unit.

Applicant would like to thank the Examiner for pointing out the informalities. In response thereto, Applicant has canceled claims 1-9, amended the claims 10, 15-17, and canceled 19-20. Reconsideration is respectfully requested.

2. The Office Action rejected claims 1-18 under 35 U.S.C. 102(b), as being anticipated by Fan (US-5,926,168).

Applicant respectfully disagrees and traverses the above rejections as set forth below.

The present invention is directed to a photographic pointer positioning system. The independent claim 10 recites at least a photographic pointing device comprising a control circuit, a communication interface, a camera, at least one reference sign, and a set of buttons.

Applicant respectfully submits that Fan fails to anticipate Claim 10 because Fan fails to teach or disclose every features of the amended proposed Claim 10. More specifically, Fan failed to teach or disclose a photographic pointer positioning system

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comprising at least a photographic pointing device comprising a control circuit, a communication interface, a camera, at least one reference sign, and a set of buttons. Instead, Fan substantially teaches, in FIG. 12a and related disclosure, a pointing means 40 including a light source 1110, which generates a light beam 1120 in the direction pointed by the pointing means 40. The light beam 120 projects a light spot 1130 on the display means 20, and the position of the light spot 1130 is determined by an imaging device 1150, which is disposed on the rear side of the display means 20. In other words, Fan substantially fails to teach or disclose the imaging device 1150 is disposed in the pointing means 40, as required by the independent claim 10, instead Fan substantially teaches disposing the imaging device 1150 on a rear side of the display screen. Thus, Fan cannot possibly anticipate claim 10 in this regard.

Furthermore, Claim 10 recites that the camera of the photographic pointing device is controlled by said control circuit to take the picture of a whole display area of said display screen and to transmit the obtained image signal to said control circuit, at least one reference sign is respectively mounted in said display screen for reference in scan and recognition processing to be done by said game machine main unit to accelerate the processing speed; and said communication interface is controlled by said control circuit to transmit the image signal from said camera to said game machine main unit for further scan and recognition processing; and said game machine main unit calculates the coordinate value of the aiming point of said camera at said display screen subject to the image signal received from said camera and outputs the calculated data to said display screen for output.

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The advantage of the above features is that the calculation of the coordinates on the display screen can be accurate and also can be rapidly calculated.

On the contrary, Fan, in Figure 12a, substantially teaches a pointing device 40 including a light source 1110 fixed on the pointing means 40. The light source 1110 generates a light beam 1120 in the direction pointed by the pointing means 40. The light beam projects a light spot 1130 on the display means 20. The position of the light spot 1130 is determined by an imaging device 1150. The position of the light spot 1130 is detected by the imaging device 1150. If the entire display area on the display means 20 is imaged by the imaging device 1150, every position on the display means 20 has one corresponding position on the image in the imaging device 1150. Thus, based on the image in the imaging device 1150, the position of the light spot 1130 can be determined. The imaging device 1150 can output the determined position directly into the computer 30 with properly designed electronics, or it can output the whole image into the computer 30 or a dedicated DSP and use the computer 30 or the DSP to calculate the coordinate of the light spot 1130. The calculated coordinate is taken as the position of the cursor 10, as shown in FIG. 12b.

Therefore, Fan substantially teaches focusing the light spot 130 using the pointing device 40 on the display means 20 and then detecting the position of the light spot 1130 using the imaging device 1150 disposed at the rear side of the display screen. In other words, Fan substantially fails to teach or disclose the imaging device is disposed in the pointing device and the imaging device is controlled by said control circuit to take the picture of a whole display area of said display screen and to transmit an obtained image signal to said control circuit; and said game machine main unit calculates the coordinate

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value of the aiming point of said camera at said display screen subject to the image signal received from said camera and outputs the calculated data to said display screen for output, as required by the independent claim 10, instead Fan substantially teaches focusing the light spot 1130 on the display means 20 and then detecting the position of the light spot 1130 using the imaging device 1150, which is disposed on a rear side of the display screen.

Thus, not only structure of the system of Fan is different but also the technique of coordinate on the display screen of Fan is substantially different compared to that of the claimed invention as claimed in claim 10, and therefore Fan cannot possibly anticipate claim 10 in this regard.

Furthermore, Fan substantially failed to teach or disclose any reference sign respectively mounted in said display screen for reference in scan and recognition processing to be done by said game machine main unit to accelerate the processing speed as required by claim 10.

Clearly, Fan lacks at least three features of the claimed invention as claimed in claim 10, and therefore Fan cannot possibly anticipate or render every features of the amended proposed independent Claim 10 obvious in this regard.

Claims 11-18, which directly or indirectly depend from the proposed independent claim 10, are also patentable over Fan at least because of their dependency from an allowable base claim 10.

Furthermore, because the new claim 21 also recites features similar to claim 10, and therefore, claim 21 is also patentable over Fan for at least the same reasons discussed above. Therefore the new claim 21 should also be allowed.

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For at least the foregoing reasons, Applicant respectfully submits that claims 10-18 and 21 patently define over Fan, and therefore claims 10-18 and 21 should be allowed. Reconsideration and withdrawal of the above rejections is respectfully requested.

3. The Office Action rejected claims 19-20 under 35 U.S.C. 103(a), as being unpatentable over Fan (US-5,926,168) and in combination of Thanasack (US-6,323,838).

Applicant respectfully submits that claims 19-20 are canceled without prejudice or disclaimer, and therefore the above rejections are now moot. Reconsideration is respectfully requested.

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CONCLUSION

For at least the foregoing reasons, it is believed that all the pending claims 10-18 and 21 of the present application are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

Respectfully submitted

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